RAIL SAFETY WHITE PAPER

Backgrounder on Rail Safety Issues & Local Government Involvement

Prepared for

THE NATIONAL LEAGUE OF CITIES MEETING

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by

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All local governments are properly united in a concern about the best and safest way to transport explosive hazmat like crude, ethanol and petroleum mixes by rail. Crude by rail shipments have skyrocketed since 2008 when only 9,500 tank cars of crude traveled by rail to the 400,000 shipped in 2013 – a 4000% increase in just 5 years. While most of these commodities make it to their destinations safely, local governments are acutely aware that in 2013 alone, more crude has been spilled in rail transport than had been spilled by rail in every year between 1975 and 2012 combined. While the accidents that led to these spills may have different causal factors, the one shared factor that transformed these accidents into catastrophic releases has been the DOT-111 tank car – a container that both federal regulators and industry know to be unsuitable for hauling flammable and explosive hazmat.

A crude oil unit train derailment in Lac-Megantic, Quebec in July, 2013 sounded the alarm to local government leaders about the scope of risk we could face when the catastrophic failure of the DOT-111 tank cars routinely used to transport these commodities resulted in the death of 47 people and the destruction of the town's central business district. Environmental remediation and rebuilding costs are likely to total $1.5 to $2 billion in the aftermath of that single event in the town of Lac-Megantic with a population of just 6,000 residents.

HISTORY:

The Chicagoland region's TRAC coalition was the initial local government organization highlighting the risks associated with the rail transport of flammable/explosive hazmat following the National Transportation Safety Board's (NTSB) 2012 report on a 2009 ethanol train derailment outside of Rockford, IL that killed one woman and injured several others. That report highlighted a startling fact – that the DOT-111 tank car used in transporting these commodities has been known since 1991 to fail in accident scenarios because it is too thin and lacks the protective elements needed to withstand a force impact.

While federal regulators have known about the significant defects in the design of this tank car for two decades, nothing has been done to remedy the problem – even when the rail industry petitioned the Pipelines and Hazardous Materials Safety Administration (PHMSA) in spring 2011 to approve improved standards for newly built DOT-111 tank cars due to its liability concerns. The Rockford incident alone resulted in a $36 million civil settlement paid by CN, so the

rail industry became rightfully concerned about its liability exposure in the face of its common carrier obligations to transport these dangerous hazmat materials in a DOT-111 tank car fleet that it, for the most part, does not own.

After reviewing the 2012 NTSB report, Barrington and TRAC jointly filed a PHMSA petition in April 2012 taking the position that the existing 92,000 car fleet of DOT-111 tank cars having the average lifespan of another 30-plus years and used for crude, ethanol and petroleum mix hazmat service needs to be retrofitted (repaired) to make them more robust under accident conditions. That request was directly based on the NTSB's statement that using new and defective tank cars together would do little to improve the safety of transporting these commodities because the old intermingled tank cars would be a weak link that would allow catastrophic releases to continue occurring in derailments.

PHMSA accepted TRAC's petition but, inexplicably, nothing has been done to fast-track new rules for either new or existing DOT-111 tank cars in the last two years. A January 2014 U.S. DOT status report on rulemaking proceedings has detailed that a final PHMSA rule on DOT-111 tank car standards won't be made available for public comment until January 2015 – a full four years after the rail industry had requested action and three years after TRAC had requested retrofit rules.

Over this period of time -- and especially following the Lac-Megantic tragedy – this issue has gotten a great deal of attention in the media that has alerted local governments to the risks associated with the transport of crude and ethanol by rail. On July 30, 2013, the TRAC co-chairs authored the opening salvo with an OpEd that was published in the Wall Street Journal stating that the defective DOT-111 tank cars were a major contributing factor in the catastrophic scope of the Lac-Megantic derailment.

While in Washington DC in August 2013 to testify before a joint public meeting held by the Federal Railroad Administration and PHMSA on the tank car regulations, TRAC also alerted the National League of Cities to the issue, which resulted in a briefing given to NLC members at its November 2013 Seattle meeting. As a result, two NLC policy committees will be considering development of an official NLC position at the March 9, 2014 meeting in Washington DC. In the wake of the Lac-Megantic tragedy, a Cross-Border Rail Safety Coalition was founded by the Union of Quebec Municipalities last summer and TRAC signed on as a founding partner. TRAC's media efforts and local government outreach led to 58 municipalities and local government umbrella organizations from across the country filing comments in the PHMSA rulemaking in December 2013 in support of Barrington/TRAC's substantive filing. Most recently, the U.S. Conference of Mayors has gotten involved in the issue and is seeking to recruit members to its Mayoral Rail Safety Coalition. The steady growth in local government involvement on matters of rail safety provides the opportunity to present a strong front on targeted measures to increase rail safety for all communities across North America.

RAIL SAFETY FOCUS:

There are a number of areas in which local governments can be effective in advocating for enhanced safety around the rail transport of crude, ethanol, and petroleum mixes. Given that no reform can ever guarantee a 100% accident-free rail operating environment, it is important for Congress and regulators to triage priorities appropriately to reduce risk and the consequences stemming from such accidents.

- **Tank Car Design.** The most basic and fundamental priority must be addressing the necessity to improve construction standards for the DOT-111 tank car and require a retrofit (repair) of the existing fleet. While industry was initially reluctant to fix the existing fleet, there has been positive momentum on that front based on the reality that it promises to be a profitable business if/when regulators provide certainty around new tank car requirements. (http://www.prnewswire.com/news-releases/greenbrier-leads-with-safer-tank-car-design-243800931.html and http://www.reuters.com/article/2014/02/06/tesoro-crude-rail-idINL2N0LB0VK20140206) This proactive measure is

within the means of the industry players and the sooner it is addressed, the sooner the ongoing threat to people across the United States and Canada will be substantially decreased.

- **Require Railroads To Provide Emergency Responders With Electronic Cargo Manifests When An Accident Occurs.** Right now federal regulators only require that railroads hand off to emergency responders a paper manifest from a train's crew when there is a rail accident. However, with mile-long trains and cargo consisting of highly flammable or explosive cargo, the crew may not be able to reach emergency responders in a timely fashion if at all. This leaves our emergency responders with no information on how best to respond to contain a hazmat release. Federal regulators must require that railroads use existing technological capabilities to provide this information electronically and in real-time to remedy this glaring safety gap. The necessity for this action is underscored by the 2009 Rockford derailment in which the two crew members sat in the locomotive and discussed the reality that neither felt safe in carrying the manifest to emergency personnel for well over two hours after the derailment. At a February 26, 2014 hearing held by the House Transportation & Infrastructure's Subcommittee on Railroads, Pipelines and Hazardous Materials, the president of the American Association of Railroads (AAR) stated that the seven U.S. Class I railroads would have this capacity in place by the end of this summer. It is unclear as to whether the smaller Class II and III railroads that also haul hazmat would have this capacity as well.

- **Hazmat train routing.** While rerouting trains carrying crude, ethanol, and petroleum mixes around the most populated areas of the country may reduce the overall consequences of a catastrophic accident, it is essentially nothing more than defining winner and loser communities in a game of Russian Roulette. Rerouting these "bomb" trains away from major cities and into less populated areas will result in a transfer of risk from the cities and an increase in risk to smaller towns that have fewer resources and less experience in dealing with a catastrophic emergency response, and where all the high-profile 2013 and 2014 derailments have actually occurred. Furthermore, depending upon the time of day of a derailment, more people may be put at risk in a suburban bedroom community than would have been the case if such a train derailed in the middle of the night in an urban industrialized location.

- **Insure There Is Sufficient Liability Protection To Protect Local Governments And Taxpayers.** In the wake of the Lac-Megantic derailment, taxpayers at the provincial and federal levels are bearing the burden of clean-up and rebuilding costs because the involved railroad filed for bankruptcy. Given the reality that increased pipeline capacity (were it to occur) will never be able to match the flexibility of moving these commodities by rail, it is essential for Congress to develop a framework for covering such costs when the worst-case scenario occurs. Right now, the seven major national railroads are purchasing the maximum $1.5 billion in liability insurance commercially available, but this does nothing to cover the numerous smaller Class II and III railroads that cannot afford that level of insurance and are generally subcontracted with to bridge the gap between origination and final destination.

  Congress should consider a per car assessment (or some other industry-funded mechanism) on the shipment of these commodities shared equally between all parties (railroads, producers, refineries, tank car owners and lessors) to fund a secondary liability pool that would augment the maximum commercially available liability insurance carried by the railroads. This secondary pool would be tapped into when the involved parties' primary insurance is exhausted. Such a framework is similar to that used by U.S. nuclear power producers. By having all parties involved in funding the secondary liability pool, this recognizes that all parties involved in the shipment of these commodities must bear some responsibility and not just the railroads with their common carrier obligation to ship this hazmat.

- **Proper Classification Of The Crude And Petroleum Mixes Derived Through Fracking.** Rules regarding the transport of hazmat are governed by the classification standards these substances are assigned. It has become quite clear that the crude and petroleum mixes derived through fracking is more combustible than that derived through traditional drilling. It is essential that regulators get a handle on proper classification, so local governments should support the joint PHMSA-FRA classification initiative announced on November 20, 2013 to classify these materials appropriately and support the agencies' commitment to joint agency inspections to insure compliance. This is especially important in light of investigators' February 4, 2014 determination that crude oil being transported from North Dakota's Bakken region was misclassified in samples taken from 11 out of 18 truck shipments en route to rail loading stations. However, even if appropriate classification of these combustible commodities is assured, it can still be shipped in DOT-111 tank cars so addressing the defects of that tank car must remain a top priority.

- **Development of oil-spill response plans that account for the large volumes of crude oil now moving by rail.** Local governments must clearly support the NTSB's January 23, 2014 recommendation to the FRA and PHMSA to "develop a program to audit response plans for rail carriers of petroleum products to ensure that adequate provisions are in place to respond to and remove a worst-case discharge to the maximum extent practicable and to mitigate or prevent a substantial threat of a worst-case discharge." Additionally, funding for emergency response is vital for local governments and so we should support the continuation of the Hazardous Materials fees paid when hazmat is shipped by rail. This program should be adjusted to insure that shippers of crude, ethanol, and petroleum mixes are paying fees commensurate with the risks this transport engenders, and perhaps, expanded for additional emergency response measures. That being said, it is important to note that while proper and adequate response is important, it cannot ameliorate the long-term damages done by a catastrophic release stemming from an accident.

  The Lac-Megantic derailment left 21 children orphaned, destroyed 40 buildings in the core of the town and caused the immediate evacuation of 1500 people. As clean-up of the 80,000 gallons of crude oil which spilled into the lake and nearby waterways continues, 200 families have been told that they may not return to their homes for at least a year, 160 businesses and homes may still have to be razed, and the fill replacing the layers of contaminated soil already removed must settle for five full years before rebuilding on it can begin. A temporary water purification reservoir has been built to serve the town. Even with over 100 Canadian government workers assisting the town with clean up and rebuilding efforts, the town's tourism industry and businesses which relied on rail transport to get goods to market have been devastated and thus many have lost jobs. Other businesses, informed that their business losses and disruptions are not covered by insurance, also face financial ruin. There have been four suicides since the disaster and experts in Post-Traumatic Stress Disorder have warned that more may be expected.

- **Inspection and Enforcement.** Because human error will always occur, it is imperative that Congress and regulators take a more robust approach to the inspection and auditing of rail operations on lines that carry this hazmat cargo. The FRA's August 2, 2013 Emergency Order No. 28 in the wake of Lac-Mégantic detailed multiple shortcomings in rail industry compliance with its current operating regulations:
  - "FRA has found there is significant non-compliance among the railroads with respect to FRA's securement regulations."
  - "FRA has recorded nearly 4,950 securement defects in the course of its inspections since January 2010, an average of approximately 1,438 defects per year."
  - "Past audits of railroads' operational testing records indicate, that in certain instances, there are significant discrepancies between the number of operating rules compliance failures that railroads record when compared with the operating rule failures that FRA inspectors observe during compliance inspections."

This record of safety rule compliance failure by railroads and the response of the FRA are clearly unacceptable. While the FRA laments not having the resources to do more, a January 30, 2014 story by McClatchey DC's Curtis Tate indicates that the FRA collected only $13.9 million in civil penalties from the railroads in 2013. (http://www.mcclatchydc.com/2014/01/30/216464/federal-rail-agency-collects-minimal.html). In fact, Tate's investigation indicates that only $17,000 in fines was collected from Canadian National Railroad for the ethanol train derailment that occurred outside of Rockford in 2009 in which CN paid $36 million to settle a civil suit with the deceased victim's family. Increased fines for non-compliance with current safety regulations and falsified reporting to FRA can do much to improve regulatory compliance and fund federal oversight of rail operations.

- **Positive Train Control Technology.** Positive train control (PTC) describes technology designed to automatically stop or slow a train before certain accidents occur. In particular, PTC is designed to prevent train-to-train collisions, derailments caused by excessive speed, unauthorized incursions by trains onto sections of track where repairs are being made and movement of a train through a track switch left in the wrong position. The Rail Safety Improvement Act of 2008 (RSIA) requires Class I railroads to use their capital to install PTC systems on tracks that carry passengers or toxic-by-inhalation (TIH) materials. Based on a January 2012 final FRA rule, the Association of American Railroads (AAR) estimates that PTC technology will be deployed on approximately 63,000 out of 140,000 miles of U.S. freight rail lines. (http://www.gao.gov/assets/660/656975.pdf .) The deadline for implementing PTC was initially December 31, 2015, but AAR has been lobbying for a three-to-five-year extension for some time. While PTC will enhance safety when it is implemented and is worthy of local government support, it will not be operable on all rail lines, nor will it likely be implemented soon.

UPCOMING RAIL SAFETY EVENT:

Through the sponsorship of Congressman Mike Michaud of Maine, TRAC and the UMQ Cross-Border Coalition for Rail Safety will be holding an open house briefing on **"Local Perspectives and the Aftermath of a Disaster"** on Capitol Hill this coming Tuesday, March 11 from 2:00 to 3:30 pm in Room 2253 of the Rayburn House Office Building. All interested NLC attendees are invited.

This briefing will provide an opportunity for Members of Congress, congressional staff, and local government leaders to hear directly from local officials about the aftermath and consequences for a community if a derailment as catastrophic as what occurred in Lac-Megantic, Quebec on July 6, 2013 were to occur in any American community traversed by a rail line. Presenters at the briefing will include:

- The Honorable Colette-Roy Laroche, Mayor of Lac-Megantic, Quebec
- The Honorable Vicki May Hamm, Mayor of Magog, Quebec
- The Honorable Roger Doiron, Mayor of Richibucto, New Brunswick
- The Honorable Luc Desjardins, Mayor of Petit-Rocher, New Brunswick
- The Honorable Jean-Guy Marquis, City Council member of Edmundston, New Brunswick
- The Honorable Karen Darch, President of Barrington, Illinois
- The Honorable Peter Nielsen, Town Manager of Oakland, Maine
- Daniel Grochowalski, Transport Counselor, Embassy of Canada
- Timothy Johnson, Government Affairs Attache, Government of Quebec Washington DC Office

Congressional Briefing: Local Perspectives and the Aftermath of a Disaster
Tuesday, March 11, 2014 from 2:00 to 3:30 pm
Room 2253 Rayburn House Office Building
45 Independence Ave SW, Washington, DC 20515